

REMARKS

Claims 1-31 and 33-44 were pending. Claims 43 and 44 have been withdrawn from further consideration by the Examiner under 37 C.F.R. § 1.142(b) as being drawn to a non-elected invention/species.

Claims 7, 9, 10, 16, 22, 33 and 34 have been amended.

New claims 45 and 46 have been added. Support for these claims can be found throughout the disclosure of the present invention, *e.g.*, at page 12, line 28 to page 13, line 24; page 14, line 15 to page 15, line 7; page 17, lines 10-28; and in original claims 13 and 38. Therefore, no new matter has been added.

a. Previously Maintained Rejections Under 35 U.S.C. § 112, Second Paragraph

In the previous Office Action of November 21, 2003, the Examiner rejected claims 1, 2, 4, 7-13, 26-34, 38, 41 and 42 under 35 U.S.C. § 112, second paragraph, as being indefinite. This rejection has been maintained in the Office Action of June 17, 2004. Applicants respectfully traverse this rejection for the following reasons.

As an initial matter, applicants note that none of claims 1, 2, 4, 7-13, 26-34 and 38 recite the term “small organic molecules” which the Examiner deemed ambiguous. Therefore, withdrawal of the rejection is warranted for these claims.

Further, applicants note that claims 1, 2 and 27 do not recite the term “derivative” which the Examiner deemed ambiguous. Therefore, withdrawal of the rejection is warranted for these claims.

With regard to claims 7-10, 38 and 41, which recite the term “derivative,” applicants respectfully submit that this term as used in the present claims is definite under 35 U.S.C. § 112, second paragraph. One of ordinary skill in the art would know the meaning of the

“derivative” of a given compound, because the term “derivative” is a well known and well defined chemical term that is understood by any person working in the chemical or biological industry. Additionally, a search of the USPTO patents database reveals over 10,000 patents whose claims include the word “derivative” in the context of chemical compositions, indicating its frequent use and acceptance by the USPTO.

The Examiner also stated in the Office Action of November 21, 2003, and maintained in the Office Action of June 17, 2004, that claims 26-34 were ambiguous because “it is unclear what specific disease, disorder or abnormal physical state applicant is claiming to be compatible with the instant invention.” (See Office Action of November 21, 2003, p. 5).

In response, it is respectfully submitted that claims 26-34 do satisfy the definiteness requirement of 35 U.S.C. § 112, second paragraph, because the meaning of the terms “disease, disorder or abnormal physical state” referred to in the present invention may include oncological, neurological, inflammatory, infection, and degenerative diseases, as well as any other diseases, disorders or abnormal physical states that would be apparent to one of ordinary skill in the art. (See, e.g., Specification, p. 6, lines 15-22 and p. 16, lines 16-20). Therefore, applicants submit that this rejection has been overcome, and respectfully request that it be withdrawn.

b. New Rejections Under 35 U.S.C. § 112, First Paragraph

Claims 1, 4, 6-13, 16, 26, 27, 33, 35, 38 and 41 have been newly rejected under 35 U.S.C. § 112, first paragraph as failing to comply with the written description requirement. Applicants respectfully traverse, and herein respond to each of the claim objections in turn.

Claim 1: The Examiner has indicated that independent claim 1 has been rejected because some of the other rejected claims depend from claim 1. However, applicants

respectfully submit that a rejected dependent claim cannot be used as a basis for rejecting an otherwise allowable independent claim. As such, applicants respectfully submit that the rejection of claim 1 should be withdrawn.

Claim 4: “organic molecule having a molecular weight less than about 600 Daltons” – Applicants respectfully submit that this term has been adequately described throughout the Specification as originally filed. *See, e.g.,* Specification, p. 8, lines 29-33, as amended in the Amendment of June 16, 2003 (“The organic molecule is preferably a small organic molecule, having molecular weight less than about 600 Daltons and more preferably less than about 500 Daltons.”). Therefore, applicants respectfully submit that the rejection under 35 U.S.C. § 112, first paragraph has been overcome and should be withdrawn.

Claim 6: “small organic molecule” – The term “small organic molecule” is adequately described in the disclosure of the present invention, in accordance with 35 U.S.C. § 112, first paragraph. For example, the Specification states that “[t]he organic molecule is preferably a small organic molecule, having molecule weight less than about 600 Daltons, and preferably less than about 500 Daltons.” (*See* Specification, p. 8, lines 29-33, as amended in the Amendment of June 16, 2003); and further, “[t]he conjugate preferably includes a peptide sequence . . . and a small organic molecule that targets a receptor or a transporter.” (*See id.* at p. 9, lines 7-11, as amended in the Amendment of June 16, 2003). Therefore, the term “small organic molecule” is adequately described throughout the present invention. Accordingly, applicants submit that this rejection has been overcome and should be withdrawn.

Claim 7: “cysteine amino acid residue derivative”; “a thiol or thioester group attached to an organic molecule” and “an amino acid residue derivative including phosphorous and phosphorous containing organic molecule” – These terms are adequately described throughout the invention. For example, the Specification states that the ligand of the present

invention preferably incorporates “(a) a surface binding group selected from the group consisting of a cysteine amino acid residue, a cysteine amino acid residue derivative, a thiol or thioether group attached to an organic molecule, an amino acid residue derivative including phosphorous and phosphorous containing organic molecule . . .” (Specification, page 8, line 15 to page 9, line 11). Therefore, applicants respectfully submit that this rejection has been overcome and should be withdrawn.

The phrase “accessory group” has been adequately defined in the disclosure of the present invention. Specifically, the Specification states that “[t]he ligand also includes at least one accessory group, and preferably three of the accessory groups, capable of forming a coordinate bond with a given complex-forming metal.” (See Specification, p. 9, lines 23-31). Furthermore, the Specification provides additional details regarding the preferred accessory groups:

The ligand preferably incorporates 3 accessory groups selected from the group consisting of (a) a nitrogen atom, an oxygen atom or a sulfur atom incorporated in an amino acid residue, (b) a nitrogen atom, an oxygen atom, a selenium atom, a phosphorous atom or a sulfur atom incorporated in an amino acid residue derivative, or (c) a nitrogen atom, an oxygen atom, a selenium atom, a phosphorous atom or a sulfur atom incorporated in an organic molecule or (d) a combination of one or more of (a) to (c), wherein the atoms have metal coordinating activity.

(Specification, p. 9, lines 22-31). Thus, applicants submit that the term “accessory group” is fully described in the disclosure of the present invention. Accordingly, applicants respectfully submit that this rejection has been overcome and should be withdrawn.

Claim 8: “an organic molecule having a molecular weight less than about 600 Daltons” – As discussed above, applicants respectfully submit that this term has been adequately described throughout the present invention. See, e.g., Specification, p. 8, lines 29-33, as amended in the Amendment of June 16, 2003 (“The organic molecule is preferably a small organic molecule, having molecular weight less than about 600 Daltons and more preferably less

than about 500 Daltons.”). Therefore, applicants respectfully submit that the rejection under 35 U.S.C. § 112, first paragraph has been overcome and should be withdrawn.

Claim 9: “N_xS_{4-x} ligand derivative” and “polyamino polysulfide derivative” – These terms are adequately described throughout the disclosure of the presently claimed invention, *e.g.*, at page 10, lines 10-12. Furthermore, claim 9 has been amended to more clearly define x as having a value of 0 to 3. This is adequately supported in the disclosure of the present invention, because one of ordinary skill in the art would understand the Specification to require a tetradentate ligand that includes at least one N atom and at least one S atom (*i.e.*, that x must have a value of 0 to 3). Therefore applicants respectfully submit that this rejection has been overcome and should be withdrawn.

Claim 10: “an organic molecule” and “derivatives” – Applicants respectfully submit that the term “organic molecule” is supported throughout the disclosure of the presently claimed invention, *e.g.*, at Specification, p. 3, line 22; p. 8, line 32, as amended in the Amendment of June 16, 2003; p. 15, line 1. Second, the term “derivatives” is also adequately described throughout the disclosure of the presently claimed invention, *e.g.*, Specification at p. 9, lines 18-31, as amended in the Amendment of June 16, 2003. Therefore applicants submit that this rejection has been overcome and should be withdrawn.

Claim 11: “an organic molecule having a molecular weight less than about 600 Daltons” – Applicants respectfully submit that this term has been adequately described throughout the present invention, *e.g.*, Specification, p. 8, lines 29-33). Therefore applicants submit that the rejection under 35 U.S.C. § 112, first paragraph has been overcome and should be withdrawn.

The terms “an enzyme substrate” and “an inhibitor” comply with the written description requirement as well. Both terms are fully described throughout the present invention,

e.g. at page 10, lines 27-33 as amended in the Amendment of June 16, 2003. Therefore, it is respectfully submitted that the terms “an enzyme substrate” and “an inhibitor” are adequately described in the presently claimed invention, and that this rejection has thus been overcome and should be withdrawn.

Claim 12 and Claim 13: “an organic molecule having a molecular weight less than about 600 Daltons” – As explained above with regard to claim 11, this term has been adequately described throughout the present invention, *e.g.*, Specification, p. 8, lines 29-33). Therefore applicants submit that the rejection under 35 U.S.C. § 112, first paragraph has been overcome and should be withdrawn.

Claim 26: “an oncological, neurological, inflammatory, infection, and degenerative disease, disorder, or abnormal physical state” – Applicants respectfully submit that these terms are adequately described in the disclosure of the invention, *e.g.*, in the Specification, p. 16, lines 16-20. “Diseases, disorders or abnormal physical states may include oncological, neurological, inflammatory, infection and degenerative diseases; other diseases, disorders and abnormal physical states will be apparent to those skilled in the art and/or on review of this application or references cited in this application.” (*Id.*). Therefore, because these terms have been adequately described in the disclosure of the presently claimed invention, applicants respectfully submit that this rejection has been overcome and should be withdrawn.

Claim 27 and Claim 33: “a disease, disorder, or abnormal physical state” – As stated above with regard to claim 26, applicants respectfully submit that these terms are adequately described in the disclosure of the invention, *e.g.*, in the Specification, p. 16, lines 16-20. “Diseases, disorders or abnormal physical states may include oncological, neurological, inflammatory, infection and degenerative diseases; other diseases, disorders and abnormal physical states will be apparent to those skilled in the art and/or on review of this application or

references cited in this application.” (*Id.*). Therefore, applicants respectfully submit that this rejection has been overcome and should be withdrawn.

Claim 38: “cysteine amino acid derivative”; “a thiol or thioester group attached to an organic molecule having a molecular weight less than about 600 Daltons” and “amino acid residue derivative including phosphorous and a phosphorous containing organic molecule” – As stated above, these terms are adequately described throughout the invention. For example, the Specification states that the ligand of the present invention preferably incorporates “(a) a surface binding group selected from the group consisting of a cysteine amino acid residue, a cysteine amino acid residue derivative, a thiol or thioether group attached to an organic molecule, an amino acid residue derivative including phosphorous and phosphorus containing organic molecule . . .” (Specification, page 8, line 15 to page 9, line 11). Furthermore, the Specification also recites an organic molecule having a molecule weight of less than about 600 Daltons. (*See id.* at p. 8, lines 29-33 as amended in the Amendment of June 16, 2003). Therefore, applicants respectfully submit that this rejection has been overcome and should be withdrawn.

As explained above with regard to claim 7, the phrase “accessory group” has been adequately defined in the disclosure of the present invention. Specifically, the Specification states that “[t]he ligand also includes at least one accessory group, and preferably three of the accessory groups, capable of forming a coordinate bond with a given complex-forming metal.” (*See* Specification, p. 9, lines 23-31). Furthermore, the Specification provides additional details regarding the preferred accessory groups:

The ligand preferably incorporates 3 accessory groups selected from the group consisting of (a) a nitrogen atom, an oxygen atom or a sulfur atom incorporated in an amino acid residue, (b) a nitrogen atom, an oxygen atom, a selenium atom, a phosphorous atom or a sulfur atom incorporated in an amino acid residue derivative, or (c) a nitrogen atom, an oxygen atom, a selenium atom, a phosphorous atom or a sulfur atom incorporated in an organic molecule or (d) a combination of one or more of (a) to (c), wherein the atoms have metal coordinating activity.

(Specification, p. 9, lines 22-31). Thus, applicants submit that the term “accessory group” is fully described in the disclosure of the present invention. Accordingly, applicants respectfully submit that this rejection has been overcome and should be withdrawn.

Claim 41: “a polypeptide or a polypeptide mimetic of about 3-50 amino acid residues or derivatives thereof” – Applicants respectfully submit that this language has support in the Specification, *e.g.* at p. 14, lines 25-28 where it is clearly stated that “[t]he peptide, polypeptide, peptide mimetic or polypeptide mimetic is preferably between about 3 and 50 amino acid residues or amino acid residue derivatives.” (Specification, p. 14, lines 25-28). Thus, applicants submit that this rejection has been overcome, and respectfully request that it be withdrawn.

c. New Rejections Under 35 U.S.C. § 112, Second Paragraph

Claims 1-31 and 33-42 have been newly rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as their invention. Applicants respectfully traverse these rejections, for the reasons described below.

Claim 1: The Examiner has indicated that independent claim 1 has been rejected because some of the other rejected claims depend from claim 1. However, applicants respectfully submit that a rejected dependent claim cannot be used as a basis for rejecting an otherwise allowable independent claim. As such, applicants respectfully submit that the rejection of claim 1 should be withdrawn.

Claim 4: “organic molecule having a molecular weight less than about 600 Daltons” – Applicants respectfully submit that this term meets the definiteness requirement of 35 U.S.C. §112, second paragraph, because based on the disclosure of the presently claimed

invention, the term “organic molecule having a molecular weight less than about 600 Daltons” would be clear to one of ordinary skill in the art. (*See* Specification, p. 8, line 15 to p. 11, line 18). First, the term “organic molecule” is well known to those of ordinary skill in the chemical and biological industry. *See, e.g.*, Hawley’s Condensed Chemical Dictionary, 14th ed. (2001). Second, it is stated in the disclosure of the presently claimed invention that an organic molecule having a molecular weight less than about 600 Daltons is a “small organic molecule,” and that such a molecule is advantageous in the present invention. (*See* Specification, p. 8, line 15 to p. 11, line 18). Therefore applicants respectfully submit that the rejection under 35 U.S.C. § 112, second paragraph has been overcome and should be withdrawn.

Claim 6: “small organic molecule” – This term is a definite term in accordance with 35 U.S.C. § 112, second paragraph. For example, it is stated throughout the disclosure of the instant invention that the term “small organic molecules” refers to molecules having a molecular weight of less than about 600 Daltons, and more preferably, less than about 500 Daltons (*see, e.g.*, Specification, page 8, line 15 to page 9, line 11). The Specification further states that “[s]mall organic molecules of preferably about: 6 to 500, 6 to 250, 6 to 100 carbons and more preferably about 6 to 50 or 6 to 25 carbons are also useful targeting molecules.” (*See id.* at page 10, line 28 to page 11, line 18). Therefore, this language conveys to one of ordinary skill in the art the meaning of the term “small organic molecules” and such term is thus definite throughout the present invention. Accordingly, applicants submit that this rejection has been overcome and should be withdrawn.

Claim 7: “cysteine amino acid residue derivative”; “a thiol or thioester group attached to an organic molecule” and “an amino acid residue derivative including phosphorous and phosphorous containing organic molecule” – All of these terms are definite in the present invention. For example, the Specification states that the ligand of the present invention

preferably incorporates “(a) a surface binding group selected from the group consisting of a cysteine amino acid residue, a cysteine amino acid residue derivative, a thiol or thioether group attached to an organic molecule, an amino acid residue derivative including phosphorous and phosphorus containing organic molecule . . .” (Specification, page 8, line 15 to page 9, line 11). Applicants respectfully submit that the description of these terms in the Specification is adequate, because one of ordinary skill in the art would understand the meaning of these terms, and that contrary to the statements in the Office Action, undue trial and error research would not be necessary in order to make and use the invention. Furthermore, the term “derivative” is a well known and well defined chemical term that is understood by any person working in the chemical or biological industry.

As described above, the phrase “accessory group” is also definite in the presently claimed invention. Specifically, the accessory group must be able to coordinate with the complex-forming metal ion, and further must include specific atoms. (*See, e.g.,* Specification, p. 9, lines 19-31). Those skilled in the art would be familiar with the types of groups that could coordinate with the desired complex-forming metal. Furthermore, the Specification provides additional details regarding the preferred accessory groups:

The ligand also includes at least one accessory group, and preferably three of the accessory groups, capable of forming a coordinate bond with a given complex-forming metal, thereby forming a stable metal-ligand complex. The ligand preferably incorporates 3 accessory groups selected from the group consisting of (a) a nitrogen atom, an oxygen atom or a sulfur atom incorporated in an amino acid residue, (b) a nitrogen atom, an oxygen atom, a selenium atom, a phosphorous atom or a sulfur atom incorporated in an amino acid residue derivative, or (c) a nitrogen atom, an oxygen atom, a selenium atom, a phosphorous atom or a sulfur atom incorporated in an organic molecule or (d) a combination of one or more of (a) to (c), wherein the atoms have metal coordinating activity.

(Specification, p. 9, lines 22-31). Thus, applicants submit that the term “accessory group” is sufficiently definite and adequately points out and distinctly claims the subject matter of the

presently claimed invention. Accordingly, applicants respectfully submit that the rejection has been overcome and should be withdrawn.

Claim 8: “an organic molecule having a molecular weight less than about 600 Daltons” – Applicants respectfully submit that this term meets the definiteness requirement of 35 U.S.C. § 112, second paragraph, because based on the disclosure of the presently claimed invention, the term “organic molecule having a molecular weight less than about 600 Daltons” would be clear to one of ordinary skill in the art. (See Specification, p. 8, line 15 to p. 11, line 18). First, the term “organic molecule” is well known to those of ordinary skill in the chemical and biological industry. See, e.g., Hawley’s Condensed Chemical Dictionary, 14th ed. (2001). Second, it is stated in the disclosure of the presently claimed invention that an organic molecule having a molecular weight less than about 600 Daltons is a “small organic molecule,” and that such a molecule is advantageous in the present invention. (See Specification, p. 8, line 15 to p. 11, line 18). Therefore applicants respectfully submit that the rejection under 35 U.S.C. § 112, second paragraph has been overcome and should be withdrawn.

Claim 9: “N_xS_{4-x} ligand derivative” and “polyamino polysulfide derivative” – As discussed above, one of ordinary skill in the art would understand the meaning of the term “derivative” in the context of general chemistry, because “derivative” is a chemical term that is well known and well defined, and understood by any person working in the chemical and biological industry. A search of the USPTO patents database reveals over 10,000 patents in which the claims recite the word “derivative” in the context of chemical compositions. This indicates the frequent use of this term, and its acceptance by the USPTO. Therefore, applicants respectfully submit that the term “derivative” is not indefinite.

The Examiner has further asked for the identity of x. (See Office Action, p. 7). Claim 9 has further been amended to more clearly define x as having a value of 0 to 3. The

skilled artisan would understand the Specification to require a tetradentate ligand that includes at least one N atom and at least one S atom (*i.e.*, that x must be 0 to 3). Therefore applicants submit that the rejection of claim 9 has been overcome, and respectfully request that it be withdrawn.

Claim 10: “an organic molecule” and “derivatives” – As stated above, one of ordinary skill in the art of general chemistry would understand the term “an organic molecule” as generally accepted by those of ordinary skill in the art working in the chemical and biological industry. *See, e.g.*, Hawley’s Condensed Chemical Dictionary, 14th ed. (2001). Furthermore, as discussed previously, the term “derivative” is also well known to those of ordinary skill in the art. Therefore, applicants respectfully submit that the rejection of claim 10 has been overcome and should be withdrawn.

Claim 11: “an organic molecule having a molecular weight less than about 600 Daltons” – As stated above, this term meets the definiteness requirement of 35 U.S.C. §112, second paragraph, because based on the disclosure of the presently claimed invention, the term “organic molecule having a molecular weight less than about 600 Daltons” would be clear to one of ordinary skill in the art (*see, e.g.*, Specification, p. 8, line 15 to p. 11, line 18). First, the term “organic molecule” is well known to those of ordinary skill in the chemical and biological industry. *See, e.g.*, Hawley’s Condensed Chemical Dictionary, 14th ed. (2001). Second, it is stated in the disclosure of the presently claimed invention that an organic molecule having a molecular weight less than about 600 Daltons is a “small organic molecule,” and that such a molecule is advantageous in the present invention. (*See* Specification, p. 8, line 15 to p. 11, line 18). Therefore applicants respectfully submit that the rejection under 35 U.S.C. § 112, second paragraph has been overcome and should be withdrawn.

The terms “an enzyme substrate” and “an inhibitor” are definite terms as well. Both terms are fully described throughout the present invention, *e.g.* at page 10, line 27 to page 11, line 18, and applicants respectfully submit that the meanings of these terms are well known to those skilled in the art. For example, someone of ordinary skill in the chemical and biological industry would know that an enzyme substrate is any substance upon which any enzyme acts, and that an inhibitor is any compound that retards or stops a chemical reaction. *See* Hawley’s Condensed Chemical Dictionary, 14th ed. (2001). Therefore all of the above terms are definite, and applicants respectfully submit that the rejection of claim 11 under 35 U.S.C. § 112, second paragraph has been overcome and should be withdrawn.

Claim 12 and Claim 13: “an organic molecule having a molecular weight less than about 600 Daltons” – As stated above with regard to claim 11, applicants respectfully submit that this term complies with the definiteness requirement of 35 U.S.C. § 112, second paragraph. *See, e.g.*, Specification, p. 8, line 15 to p. 11, line 18. Based on the disclosure of the presently claimed invention, the term “organic molecule having a molecular weight less than about 600 Daltons” would be clear to one of ordinary skill in the art. (*See* Specification, p. 8, line 15 to p. 11, line 18). First, the term “organic molecule” is well known to those of ordinary skill in the chemical and biological industry. *See, e.g.*, Hawley’s Condensed Chemical Dictionary, 14th ed. (2001). Second, it is stated in the disclosure of the presently claimed invention that an organic molecule having a molecular weight less than about 600 Daltons is a “small organic molecule,” and that such a molecule is advantageous in the present invention. (*See* Specification, p. 8, line 15 to p. 11, line 18). Therefore applicants respectfully submit that the rejection under 35 U.S.C. § 112, second paragraph has been overcome and should be withdrawn.

Claim 26: “an oncological, neurological, inflammatory, infection, and degenerative disease, disorder, or abnormal physical state” – Applicants respectfully submit that these terms are definite, because the disclosure of the present invention states that diseases, disorders and abnormal physical states include oncological, neurological, inflammatory, infection, and degenerative diseases, as well as other diseases, disorders and abnormal physical states that are apparent to those skilled in the art (*see* Specification, page 16, lines 16-20). Therefore, it is submitted that this rejection has been overcome, and applicants respectfully request that it be withdrawn.

Claim 27 and Claim 33: “a disease, disorder, or abnormal physical state” – Applicants respectfully submit that these terms are definite, because, as discussed above with regard to claim 26, the disclosure of the presently claimed invention states that diseases, disorders and abnormal physical states include oncological, neurological, inflammatory, infection, and degenerative diseases, as well as other diseases, disorders and abnormal physical states that are apparent to those skilled in the art (*see* Specification, page 16, lines 16-20). Therefore, it is submitted that this rejection has been overcome, and applicants respectfully request that it be withdrawn.

Claim 38: “cysteine amino acid derivative”; “a thiol or thioester group attached to an organic molecule having a molecular weight less than about 600 Daltons” and “amino acid residue derivative including phosphorous and a phosphorous containing organic molecule” – These terms are definite under 35 U.S.C. § 112, second paragraph. For example, the Specification states that the ligand of the present invention preferably incorporates “(a) a surface binding group selected from the group consisting of a cysteine amino acid residue, a cysteine amino acid residue derivative, a thiol or thioether group attached to an organic molecule, an amino acid residue derivative including phosphorous and phosphorous containing organic

molecule . . .” (Specification, page 8, line 15 to page 9, line 11). Applicants respectfully submit that the description of these terms in the Specification is sufficiently definite, because one of ordinary skill in the art would understand their meaning, and that contrary to the statements in the Office Action, undue trial and error research would not be necessary in order to make and use the invention. Therefore, applicants respectfully submit that this rejection has been overcome and should be withdrawn.

As explained above with regard to claim 7, the phrase “accessory group” has been adequately defined in the specification. Specifically, the accessory group must be able to coordinate with the complex-forming metal ion, and further must include specific atoms. (*See, e.g.,* Specification, p. 9, lines 19-31). Those skilled in the art are familiar with the types of groups that can coordinate with the desired complex-forming metal, and thus are aware of the meaning of the term “accessory group.” Furthermore, the Specification provides additional details regarding the preferred accessory groups:

The ligand also includes at least one accessory group, and preferably three of the accessory groups, capable of forming a coordinate bond with a given complex-forming metal, thereby forming a stable metal-ligand complex. The ligand preferably incorporates 3 accessory groups selected from the group consisting of (a) a nitrogen atom, an oxygen atom or a sulfur atom incorporated in an amino acid residue, (b) a nitrogen atom, an oxygen atom, a selenium atom, a phosphorous atom or a sulfur atom incorporated in an amino acid residue derivative, or (c) a nitrogen atom, an oxygen atom, a selenium atom, a phosphorous atom or a sulfur atom incorporated in an organic molecule or (d) a combination of one or more of (a) to (c), wherein the atoms have metal coordinating activity.

(Specification, p. 9, lines 22-31). Thus, applicants submit that the term “accessory group” is sufficiently definite, and respectfully request that this rejection be withdrawn.

Claim 41: “a polypeptide or a polypeptide mimetic of about 3-50 amino acid residues or derivatives thereof” – Applicants respectfully submit that this term is definite. For example, the Specification states that “[t]he peptide, polypeptide, peptide mimetic or polypeptide

mimetic is preferably between about 3 and 50 amino acid residues or amino acid residue derivatives.” (Specification, p. 14, lines 25-28). One of ordinary skill in the art would understand the characteristics of the amino acid residues or derivatives thereof, based on this recitation in the claim. As stated previously, the term “derivatives” is well known to those skilled in the art of general chemistry.

d. The Examiner’s Comments and Notes

The Examiner’s statement in Section 8 of the Office Action, that applicants must overcome the double patenting rejection, is not understood, as it appears that on page 2 of the Office Action, the Examiner withdrew this rejection.

In accordance with the Examiner’s suggestion, claim 34 has been amended to replace “^{99m}TC” with “^{99m}Tc.” This amendment has also been made to claim 22.

CONCLUSION

In light of the present amendments and remarks, applicants respectfully submit that the present claims are in condition for allowance, early notice of which is earnestly sought. If any outstanding issues remain, the Examiner is invited to telephone the applicants' representatives to discuss the same.

No fees are believed to be required for the filing of this *Amendment and Response to Office Action*. However, if any fees are due, please charge such fees to Deposit Account No. 50-0540.

Respectfully submitted,

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